

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a station that is capable of communicating with at least one access point in a communications network, a method for creating a secure association between the station and at least one access point, the method comprising:

at a station that is a client device seeking access to other client devices and a network by associating with and authenticating itself to one or more access points that bridge communications between the client device and a network communications server in the communications network, obtaining discovery information from the one or more access points in the communications network, the discovery information reflecting capabilities of the one or more respective access points to facilitate communication with the station;

selecting one of the access points to become associated with; and

authenticating the selected access point, wherein authenticating the selected access point includes verifying the discovery information previously obtained from the one or more access points in the communications network by:

sending the same discovery information obtained from the selected access point while previously obtaining discovery information back to the selected access point as part of a discovery verification request to be verified, wherein the same discovery information previously obtained from the access point and sent back to the selected access point includes the capabilities of the selected access point and is sent back with a security object; and

receiving an acknowledgement receipt from the selected access point verifying that the capabilities included in the discovery information sent back with the security object in the discovery verification request matches the capabilities included in the discovery information provided by the selected access point while obtaining discovery information from the one or more access points.

2. (Previously Presented) A method as recited in claim 1, wherein the security object is an identifiable security object obtained during authentication.

3. (Previously Presented) A method as recited in claim 2, wherein the identifiable security object includes at least one of an encryption key, a certificate, or a hash number.

4. (Original) A method as recited in claim 1, wherein authenticating the access point includes identifying a certificate from a trusted certificate authority.

5. (Original) A method as recited in claim 4, wherein the trusted certificate authority is a server of the communications network

6. (Original) A method as recited in claim 1, wherein authenticating the access point is part of a mutual authentication that also involves the access point authenticating the station.

7. (Original) A method as recited in claim 1, further including an act of sending a frame to the access point after receiving the acknowledgment receipt, wherein the frame includes a verifiable key that indicates to the access point that the frame is actually received from the station.

8. (Original) A method as recited in claim 7, wherein the frame includes a management frame configured to control the secure association between the access point and the station.

9. (Original) A method as recited in claim 8, wherein the management frame is configured to terminate the secure association.

10. (Currently Amended) A computer program product for use in a station that is capable of communicating with at least one access point in a communications network, the computer program product comprising one or more computer-readable storage media storing computer-executable instructions for implementing a method for creating a secure association between the station and at least one access point, the method comprising:

at a station that is a client device seeking access to other client devices and a network by associating with and authenticating itself to one or more access points that bridge communications between the client device and a network communications server in the communications network, obtaining discovery information from the one or more access points in the communications network, the discovery information reflecting capabilities of the one or more respective access points to facilitate communication with the station;

selecting one of the access points to become associated with; and
authenticating the selected access point, wherein authenticating the selected access point includes verifying the discovery information previously obtained from the one or more access points in the communications network by:

sending the same discovery information obtained from the selected access point while previously obtaining discovery information back to the selected access point as part of a discovery verification request to be verified, wherein the same discovery information previously obtained from the access point and sent back to the selected access point includes the capabilities of the access point and is sent back with a security object; and

receiving an acknowledgement receipt from the selected access point
verifying that the capabilities of the access point as included in the discovery information sent back with the security object in the discovery verification request matches the capabilities of the access point as included in the discovery information provided by the selected access point during the obtaining of discovery information from the one or more access points.

11. (Previously Presented) A computer program product as recited in claim 10, wherein the security object is an identifiable security object obtained during authentication.

12. (Previously Presented) A computer program product as recited in claim 11, wherein the identifiable security object includes at least one of an encryption key, a certificate, or a hash number.

13. (Original) A computer program product as recited in claim 10, wherein authenticating the access point includes identifying a certificate from a trusted certificate authority.

14. (Original) A computer program product as recited in claim 13, wherein the trusted certificate authority is a server of the communications network

15. (Original) A computer program product as recited in claim 10, wherein authenticating the access point is part of a mutual authentication that also involves the access point authenticating the station.

16. (Original) A computer program product as recited in claim 10, wherein the method further includes an act of sending a frame to the access point after receiving the acknowledgment receipt, wherein the frame includes a verifiable key that indicates to the access point that the frame is actually received from the station.

17. (Original) A computer program product as recited in claim 16, wherein the frame includes a management frame configured to control the secure association between the access point and the station.

18. (Original) A computer program product as recited in claim 17, wherein the management frame is configured to terminate the secure association.

19. (Currently Amended) In an access point that is capable of communicating with at least one station in a communications network, a method for creating a secure association between the station and at least one access point, the method comprising:

at an access point that bridges communication between one or more stations that are client devices seeking access to other client devices and a network by associating themselves with and authenticating themselves to one or more access points, providing discovery information to one of the one or more stations, the discovery information reflecting capabilities of the access point to facilitate communication with the one of the one or more stations;

providing a certificate with the discovery information that is used by the station to authenticate discovery information of the access point;

receiving the ~~provided same~~ discovery information provided by the access point to the one of the one or more stations back from the one of the one or more stations as part of a discovery verification request from the one of the one or more stations, wherein the discovery verification request includes at least part of the same discovery information provided by the access point to the one of the one or more stations while the one of the one or more stations was previously obtaining discovery information from multiple access points, including at least the capabilities of the access point as previously provided by the access point to the one of the one or more stations; and

sending an acknowledgement receipt to the station, thereby verifying to the one of the one or more stations that the received capabilities of the access point included in the discovery information sent back as part of the discovery verification request matches the capabilities of the access point included in the discovery information originally provided while the one of the one or more stations was obtaining discovery information from multiple access points.

20. (Previously Presented) A method as recited in claim 19, wherein the discovery verification request includes an identifiable security object obtained during authentication of the access point by the one of the one or more stations.

21. (Previously Presented) A method as recited in claim 20, wherein the identifiable security object includes at least one of an encryption key, a certificate, or a hash number.

22. (Original) A method as recited in claim 19, wherein the certificate is signed by a server of the communications network

23. (Previously Presented) A method as recited in claim 19, further including an act of authenticating the one of the one or more stations as an authorized network device.

24. (Currently Amended) A computer program product for use in an access point that is capable of communicating with at least one station in a communications network, the computer program product comprising one or more computer-readable storage media storing computer-executable instructions for implementing a method for creating a secure association between the station and at least one access point, the method comprising:

at an access point that bridges communication between one or more stations that are client devices seeking access to other client devices and a network by associating themselves with and authenticating themselves to one or more access points, providing discovery information to the one of the one or more stations, the discovery information reflecting available transfer rate capabilities of the access point to facilitate communication with the one of the one or more stations;

providing a certificate with the discovery information that is used by the station to authenticate discovery information of the access point;

receiving the ~~provided same~~ discovery information provided by the access point to the one of the one or more stations, back from the one of the one or more stations as part of a discovery verification request from the one of the one or more stations, wherein the discovery verification request includes at least ~~part of the discovery information the~~ available transfer rate capabilities of the access point as provided by the access point to the one of the one or more stations while the one of the one or more stations was previously obtaining discovery information from multiple access points; and

sending an acknowledgement receipt to the station, thereby verifying to the one of the one or more stations that the received discovery information sent back as part of the discovery verification request matches the discovery information originally provided while the one of the one or more stations was obtaining discovery information from multiple access points.

25. (Previously Presented) A computer program product as recited in claim 24, wherein the discovery verification request includes an identifiable security object obtained during authentication of the access point by the one of the one or more stations.

26. (Previously Presented) A computer program product as recited in claim 25, wherein the identifiable security object includes at least one of an encryption key, a certificate, or a hash number.

27. (Original) A computer program product as recited in claim 24, wherein the certificate is signed by a server of the communications network

28. (Previously Presented) A computer program product as recited in claim 24, the method further including an act of authenticating the one of the one or more stations as an authorized network device.

29-43. (Cancelled).

44. (New) A method as recited in claim 1, wherein the discovery information obtained from the selected access point, and which is sent back to the selected access point as part of authenticating the selected access point, includes one or more of: signal strength information, transfer rate information, encryption support information, channel information, or restriction information.